

REMARKS

This application has been reviewed in light of the Office Action mailed on March 11, 2003. Claims 1-8 are pending in the application with Claim 1 being in independent form. By the present amendment, the specification and Claims 1-8 have been amended. No new matter or issues are believed to be introduced by the amendments.

In the Office Action, the drawings were objected to for not showing every feature of the invention specified in the claims. Claims 1 and 8 have been amended in a manner which is believed to obviate the objection. Accordingly, withdrawal of the objection is respectfully requested.

The specification has been amended to include section headings as suggested by the Examiner.

Claims 2-8 were objected to due to an informality. Claims 2-8 have been amended in a manner which is believed to obviate the objection. Accordingly, withdrawal of the objection is respectfully requested.

Claims 1-5 and 7-8 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,876,522 issued to Zakman on October 24, 1989 ("Zakman").

Independent Claim 1 has been amended herein to better define Applicants' invention and to patentably distinguish Applicants' invention over Zakman. Claim 1 recites limitations and/or features which are not disclosed or suggested by Zakman.

Claim 1 recites:

A wireless terminal comprising a ground conductor and a plurality of antenna feeds, wherein each antenna feed is coupled directly to the ground conductor, and wherein each side of the ground conductor has a surface area greater than the surface area of each of the plurality of antenna feeds. (Emphasis added)

It is respectfully submitted that at least the limitations and/or features of Claim 1 which are newly added and underlined above are not disclosed or suggested by Zakman. These limitations and structural characteristics of Applicants' wireless terminal substantially improve the performance thereof over prior art wireless terminals. The reasons these structural characteristics improve the performance are described in the specification in conjunction with the accompanying Smith charts illustrated by the various figures.

Zakman is directed to an internally mounted broadband antenna utilizing two resonators and a reactive ground feed. A nonconductive notch separates a conductive surface into two portions which are coupled to a respective one of each resonator. Each resonator is a microstrip conductor forming a transmission line with its respective conductive surface portion. Coupling to the antenna is accomplished by connection across the notch. The ground feed has six sides. Two of the sides have a surface area which is greater than the surface area of each of the resonators. The other four sides have a surface area which is less than the surface area of each of the resonators.

Accordingly, Zakman does not disclose or suggest a wireless terminal comprising a ground conductor and a plurality of antenna feeds, where each side of the ground conductor has a surface area greater than the surface area of each of the plurality of antenna feeds, as recited by Applicants' Claim 1.

Claims 2-5 and 7-8 depend from independent Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 2-5 and 7-8 are believed to be allowable over the cited reference. Accordingly, withdrawal

of the rejection under 35 U.S.C. §102(b) with respect to Claims 1-5 and 7-8 and allowance thereof are respectfully requested.

Claim 6 was rejected under 35 U.S.C. §103(a) over Zakman in view of U.S. Patent No. 5,903,822 issued to Sekine et al. ("Sekine et al.").

Claim 6 depends from independent Claim 1 and therefore contains the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claim 6 is believed to be allowable over the cited references. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) with respect to Claim 6 and allowance thereof are respectfully requested.

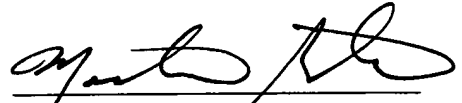
In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-8, are believed to be in condition for allowance and patentably distinguishable over the art of record.

Attached hereto and identified as VERSION WITH MARKINGS TO SHOW CHANGES MADE is a copy of text of Claims 1-8 detailing the amendments made thereto.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Jack D. Slobod, Esq., Intellectual Property Counsel, Philips Electronics North America Corp., at 914-333-9606.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend Claims 1-8 as set forth hereinbelow:

1. (Amended) A wireless terminal comprising a ground conductor and [a transceiver coupled to] a plurality of antenna feeds, wherein each antenna feed is coupled directly to the ground conductor, and wherein each side of the ground conductor has a surface area greater than the surface area of each of the plurality of antenna feeds.
2. (Amended) [A] The terminal as claimed in claim 1, characterised in that each antenna feed is coupled to the ground conductor via a capacitor.
3. (Amended) [A] The terminal as claimed in claim 2, characterised in that the capacitor is a parallel plate capacitor formed by a conducting plate and a portion of the ground conductor.
4. (Amended) [A] The terminal as claimed in claim 1, characterised in that a slot is provided in the ground conductor.
5. (Amended) [A] The terminal as claimed in claim 4, characterised in that the slot is parallel to the major axis of the terminal.

6. (Amended) [A] The terminal as claimed in claim 1, characterised in that the ground conductor is a handset case.
7. (Amended) [A] The terminal as claimed in claim 1, characterised in that the ground conductor is a printed circuit board ground plane.
8. (Amended) [A] The terminal as claimed in claim 1, characterised in that a matching network is provided for [between the transceiver and] each antenna feed.